

What is claimed is:

- 5 1. A medical device which includes a component formed from an alloy which contains at least about 40% Ni by weight, the device having a 10 nm deep surface region of containing not more than about 5% Ni by weight.
- 10 2. A device as claimed in claim 1, in which the alloy in the said surface region contains not more than about 3% Ni.
- 15 3. A device as claimed in claim 1, in which the alloy has been subjected to polishing and oxidizing treatment on said surface region.
- 20 4. A device as claimed in claim 3, in which the said polishing treatment comprises an electrochemical or mechanical treatment.
- 25 5. A device as claimed in claim 3, in which the said oxidizing treatment comprises at the steps of exposure to superheated steam, a chemical treatment and an electrochemical treatment.
6. A device as claimed in claim 1, in which the alloy is a Ni-Ti based alloy.
7. The device of claim 5, in which the said electrochemical oxidizing treatment comprises anodizing in a acidic, neutral or basic solution.
8. A device as claimed in claim 1, in which the device has been treated so that it exhibits superelastic properties.

9. A device as claimed in claim 1, in which the alloy contains at least about 48% Ni by weight.

5 10. A device as claimed in claim 9, in which the alloy contains at least about 50% Ni by weight.

11. A device as claimed in claim 1, in the form of a stent.

10 12. A method of making a medical device comprising a component formed from an alloy which contains nickel, which includes the step of exposing the component in a surface region thereof to a treatment which causes the Ni content of the alloy in that region to be reduced compared with that in the remainder of the component.

15 13. The method of claim 12 wherein said device is a stent.

14. A method as claimed in claim 12, in which the component is exposed to superheated steam.

20 15. A method as claimed in claim 14, in which the component is exposed to steam for at least about 3 hours.

16. A method as claimed in claim 14, in which the steam is heated to at least about 120 °C.

17. A method as claimed in claim 13, in which the said treatment comprises a chemical treatment, in which the device is immersed in an acidic, neutral or basic chemical solution bath.

5 18. A method as claimed in claim 17, in which the said treatment comprises a chemical treatment, in which the device is immersed for at least about 0.5 hour.

10 19. A method as claimed in claim 12, in which the said treatment comprises an electrochemical treatment, in which the device is included in an electrochemical system as an anode in a solution bath with current running therethrough.